

## Keeping Metro's trolley-bus system current

Metro is replacing its aging trolley fleet with 174 new, state-of-the-art electric trolleys.

Of these, 110 will be 40-foot coaches and 64 will be 60-foot vehicles. The 40-footers will be phased into service starting Aug. 19, 2015, with the 60-footers to follow in early 2016.

Manufactured by New Flyer, the new trolleys are quiet, energy-efficient and emissions-free. The New Flyer electric trolley buses will use an estimated 20 to 30 percent less energy than the current electric trolley buses. They have regenerative braking that puts energy back into the trolley overhead electrical system.

The trolleys offer a number of amenities for Metro customers:

- Filtered heating and air conditioning
- Low floors for easier and faster boarding and exiting
- An updated system to secure wheelchairs
- Three doors on the 60-foot buses and the ability to kneel the full length of the bus
- Back doors that passengers can open by pressing on them—no need to call out to the driver.



*The new trolleys feature a purple exterior and two-toned green and gray seats inside.*

Unlike Metro's older trolleys, the new trolleys can operate off-wire for several miles. That feature allows them to go around construction zones or other disruptions, reducing the need to use diesel bus substitutes.

### FAST FACTS

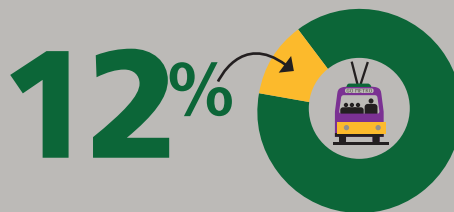
Metro's trolley system operates on

**70** MILES



of two-way overhead wire in Seattle.

The new trolley purchase represents over



of Metro's **entire fleet**.

### TROLLEY ROUTES

1, 2, 3, 4, 7, 10, 12, 13, 14, 36, 43, 44, 49, 70

**CARRY**

**20%**

of Metro's weekday riders



Trolley-bus systems are operated in five U.S. cities:

**Seattle** **PHILADELPHIA**  
**SAN FRANCISCO** **Dayton**  
**BOSTON**

Metro's system is the **second largest**.  
 Vancouver, B.C. also has trolley buses.

## WHY NEW TROLLEYS WERE PURCHASED

The older trolley fleet that is being replaced is made up of 40-foot Gillig trolleys that have reached the end of their useful lives, and 60-foot Breda buses that were purchased in 1990 as diesel-electrics and later converted to electric-only buses. Because of their age and operating costs, these buses are less reliable and more expensive to maintain than modern trolleys. Before deciding to replace the aging trolley fleet, Metro conducted an in-depth study of potential alternatives, comparing their costs, limitations, and benefits. This evaluation confirmed that trolleys are preferable for moving riders in the very hilly and dense urban environment served by the trolley system.



*New style bike racks.*



*Interior of trolley featuring new colors and patterns.*

## COST

Metro's contract with New Flyer is about \$186 million. Metro may purchase more trolleys in the future depending on service needs.

Metro teamed up with the San Francisco Municipal Transportation Authority (SFMTA) to purchase replacement trolleys from the same contract, giving both agencies highly competitive pricing.

Approximately \$138 million in federal grants helps fund the trolley purchases. That's about 65 percent of the total cost of the new fleet.

When factors such as capital cost, fuel consumption, maintenance and available grant funding are considered, the electric trolley system is expected to cost less than Metro's hybrid fleet to operate during the projected life of the vehicles. Metro will save money on spare parts because its new trolleys and hybrid buses are manufactured by the same company.



*Propulsion control components on top of trolley.*

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